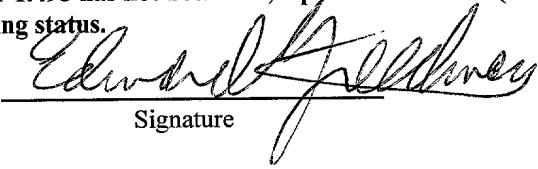


FORM PCT 1390 REV. 5/93  U S DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NO MAYR, R ET AL-1 (PCT)
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U S APPLICATION NO. (if known, see 37 CFR 1.5) <b>09/674205</b>
INTERNATIONAL APPLICATION NO. PCT/AT00/00052	INTERNATIONAL FILING DATE FEBRUARY 28, 2000	PRIORITY DATE CLAIMED MARCH 1, 1999
TITLE OF INVENTION MILL SAW		
APPLICANT(S) FOR DO/EO/US REINHOLD MAYR ET AL		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(l).</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))</p> <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau)</li> <li><input type="checkbox"/> has been transmitted by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> <p>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <ol style="list-style-type: none"> <li><input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li> <li><input type="checkbox"/> have been transmitted by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has <b>NOT</b> expired.</li> <li><input type="checkbox"/> have not been made and will not be made.</li> </ol> <p>8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p>		
<b>Items 11. to 16. below concern other document(s) or information included:</b>		
<p>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</p> <p>14. <input type="checkbox"/> A substitute specification.</p> <p>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</p> <p>16. <input checked="" type="checkbox"/> Other items or information:</p> <p>PCT/ISA/210 - Int'l. Search Report (English) Small Entity Declaration 3 sheets of Formal Drawings</p>		

APPLICATION NO (if known, see 37 CFR 1.5) <b>09/674205</b>	INTERNATIONAL APPLICATION NO PCT/AT00/00052	ATTORNEY'S DOCKET NO MAYR, R. ET AL-1 PCT		
<input checked="" type="checkbox"/> The following fees are submitted:		CALCULATIONS		
<b>Basic National Fee (37 CFR 1.492(a)(1)-(5)):</b>		PTO USE ONLY		
Search Report has been prepared by the EPO or JPO..... <b>\$840.00</b>				
International preliminary examination fee paid to USPTO (37 CFR 1.482)..... <b>\$670.00</b>				
Neither international preliminary examination fee paid (37 CFR 1.82) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO..... <b>\$970.00</b>				
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4)..... <b>\$96</b>				
<b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>		<b>\$ 860.00</b>		
Surcharge of <b>\$130.00</b> for furnishing the oath or declaration later than <b>20</b> <b>30</b> months from the earliest claimed priority date (37 CFR 1.492(e)).				
Claims	Number Filed	Number Extra	Rate	
Total Claims	5 - 20 =	- 0 -	X <b>\$18.00</b>	\$
Independent Claims	1 - 3 =	2	X <b>\$78.00</b>	\$
Multiple dependent claim(s) (if applicable)		+ <b>\$260.00</b>		\$
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$
Reduction by $\frac{1}{2}$ for filing by small entity, if applicable. Verified Small Entity statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$ 430.00
<b>SUBTOTAL =</b>				\$ 430.00
Processing fee of <b>\$130.00</b> for furnishing the English translation later than <b>20</b> <b>30</b> months from the earliest claimed priority date (37 CFR 1.492(f)).		+		\$
<b>TOTAL NATIONAL FEE =</b>				\$ 430.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property +		See cover sheet attached to assign \$ to be charged to Deposit Acct.		
<b>TOTAL FEES ENCLOSED =</b>		\$ 430.00		
		Amount to be: refunded	\$	
		charged	\$	
<p>a. <input checked="" type="checkbox"/> A check in the amount of <b>\$430.00</b> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. 03-2468 in the amount of <b>\$</b> to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed.</p>				
<p><b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b></p> <p>SEND ALL CORRESPONDENCE TO:</p> <p>COLLARD &amp; ROE, P.C. 1077 Northern Boulevard Roslyn, New York 11576-1696 (516) 365-9802</p> <p>Express Mail No. <b>EL 621 998 760 US</b></p> <p>Date of Deposit <b>October 27, 2000</b></p> <p>I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231</p>				
 <b>Edward R. Freedman</b> <b>Reg. No. 26,048</b>				
 <b>Lisa L. Vulpis</b>				

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT OR PATENTEE: REINHOLD MAYR ET AL  
SERIAL or PATENT NO.: PCT/AT2000/00052  
FILED or ISSUED: February 28, 2000  
GROUP:  
TITLE: Mill Saw

**SMALL ENTITY DECLARATION**

FOR INDEPENDENT INVENTOR(S)

As a below-named inventor, I hereby declare that I am an independent inventor who (1) has not assigned, granted, conveyed, or licensed, and (2) is under no obligation under contract or law, to assign, grant, convey, or license, any rights in the invention, to any person who could not likewise be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization, as defined in 37 CFR 1.9(c).

FOR SMALL BUSINESS CONCERN

I hereby declare that Wintersteiger GmbH is a business concern which qualifies as a small business concern as defined in §1.9(d) - namely, (1) whose number of employees, including those of its affiliates, does not exceed 500 persons; and (2) which has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section; and that the exclusive rights to the invention have been conveyed to and remain with the above-identified small business concern.

I further declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful, false statements and the like, so made, are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the patent application or any patent issuing thereon.

Each of the undersigned hereby grants the firm of **COLLARD & ROE, P.C.**, 1077 Northern Boulevard, Roslyn, New York 11576, U.S.A., the power to insert in this Small Entity Declaration any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for filing and acceptance of this Declaration.

INVENTOR(S)

Name:

Date:

Name:

Date:

Name:

Date:

Name:

SMALL BUSINESS CONCERN:

By 

Name : PETER KUCHNER

Title: GENERAL MANAGER

Date : 11-10-00

By \_\_\_\_\_

Name : \_\_\_\_\_

Title: \_\_\_\_\_

Date : \_\_\_\_\_

09/674205

326 Rec'd PCT/US 27 OCT 2000

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: REINHOLD MAYR ET AL-1 (PCT)

PCT No.: PCT/AT00/00052 FILED: FEBRUARY 28, 2000

TITLE: MILL SAW

PRELIMINARY AMENDMENT

BOX PCT

Ass't. Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Preliminary to the initial Office Action, please amend the above-identified application as follows:

IN THE CLAIMS

Please amend the claims as follows:

Claim 3, line 1, delete "or 2";

Claim 4, line 1, delete "one of the Claims 1 to 3", and  
insert --Claim 1--;

Claim 5, line 1, delete "one of the Claims 1 to 4", and  
insert --Claim 1--.

REMARKS

By this Preliminary Amendment, the multiple dependency of certain of the dependent claims has been removed so as to avoid the surcharge associated therewith. Entry of this amendment is respectfully requested.

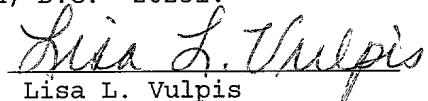
Respectfully submitted,  
REINHOLD MAYR ET AL

By:   
Alfison C. Collard, Reg. No. 22,532  
Edward R. Freedman, Reg. No. 25,048  
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Date of Deposit: October 27, 2000

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

  
Lisa L. Vulpis

## Mill Saw

### Field of the Invention

[0001] The invention relates to a mill saw with a saw gate driven via a slider-crank drive, whose parallel saw blades, which cut only in one stroke direction, are provided with a bias, and with a feed conveyor for the stock to be cut, which is driven intermittently during the cutting stroke of the saw gate as a function of the cutting speed by means of at least one motor separated from the slider-crank drive and connected to a controlling system.

### Description of the Prior Art

[0002] To ensure, in spite of the sinusoidal speed gradient, regular chip thicknesses over the cutting stroke in case of mill saws with a saw gate driven via a slider-crank drive, the saw blades of which cut in only one stroke direction, the feed conveyor for the stock to be cut must be driven intermittently as a function of the cutting speed. To this end it is common practice to derive the feed drive for the feed conveyor from the slider-crank drive, for instance via a ratchet drive, whereby the feed conveyor for the stock to be cut is connected with the slider-crank drive only during the cutting stroke. As the saw blades are provided with a bias relative to stroke direction, so that the saw blades are disengaged from the stock to be cut

during the return stroke while the feed conveyor is idle, the stock to be cut must first be advanced, via the feed drive, towards the saw blades according to the saw blade disengagement, before any cutting engagement can take place. This requires a lead of the feed drive against the cutting stroke of the saw gate, resulting in a phase displacement between the slider-crank drive and the feed drive derived from the slider-crank drive, so that, as a consequence, the cutting speed reaches its maximum only after the rate of feed. This circumstance entails unregular chips over the cutting stroke and thus unregular stresses of the saw blades with unfavorable consequences for the service life of the saw blades and for the cutting quality, in particular, when parquet lamellas shall be cut of commercially available stock lumber.

[0003] Problems are similar when the feed conveyor for the stock to be cut is equipped with a motor separated from the slider-crank drive of the saw gate that is driven intermittently as a function of the slider-crank drive, for instance by joining up the hydraulic motor of the feed drive intermittently into the pump circuit via a reversing valve (DE 34 06 455 A). Here the reversing valve is controlled via a reversing shaft that is in a driving connection with the slider-crank drive. By intermittently reversing the control valve via the reversing shaft, however, irregular saw blade stress cannot be avoided.

#### Summary of the Invention

[0004] The invention has therefore the objective to design a mill saw of the above mentioned kind in such a way that favorable cutting features are ensured to guarantee a long service life of the saw blades at comparatively high cutting rates.

[0005] The objective of the invention is achieved in that the controlling system connected to a signal transmitter for a preset position of rotation of the slider-crank drive controls the motor in dependence on the response of the signal transmitter according to a stored control program for a conveying step adaptable to the respective stroke frequency of the slider-crank drive.

[0006] To achieve, for example, a regular thickness of the saw chips over the cutting stroke that is favorable in terms of saw blade stress, the speed gradient of the feed conveyor must be exactly matched with the gradient of the cutting speed of the saw gate during the cutting stroke after overcoming the saw blade disengagement, which requires a sufficiently accurate motor control, if the feed drive is independent of the slider-crank drive. According to the invention, this accurate motor control is simply achieved in that, contrary to the conventional mechanical drive connection between the slider-crank drive and the feed conveyor, where each angle of rotation of the slider-crank drive is assigned with an angle of rotation for the motor of the feed drive, the motor is controlled via a controlling system according to a stored control program for a conveying step, so that, for executing such a conveying step of the feed conveyor, it is only required to cycle the controlling system via the slider-crank drive. To this end a signal transmitter for a preset position of rotation of the slider-crank drive is to be provided. Due to the inertia of the moving masses the prerequisite for such a control of the driving motor cycled by the slider-crank drive, that there be only a trifling change of the rotating speed during the cutting stroke of the saw gate, is fulfilled in case of mill saws. It only needs to be provided for that the chronological sequence of the stored control program is adapted to the respective stroke frequency of the slider-crank drive, which is not difficult at all, as the controlling system is admitted with the respective stroke frequency for a given position of rotation of the slider-crank drive via the signal transmitter.

[0007] Although basically each position of rotation of the slider-crank drive is suitable for cycling the controlling system, particularly favorable constructional features are achieved, if the signal transmitter consists of a sensor for the dead center of the slider-crank drive at the end of the cutting stroke, as in this case the signal transmitter can be easily assigned with the saw gate guide, without having to provide complex adjustment facilities. The dead center at the end of a cutting stroke makes it possible for the feed drive to set in already with the next cutting stroke in spite of the lead necessary for overcoming the saw blade disengagement.

[0008] The conveying distance of the stock to be cut for overcoming the saw blade disengagement depends only on the chosen bias of the saw blades, and is independent of

the stroke frequency of the saw gate. Therefore, the controlling system may be provided with memories for a control program dependent on the speed of the slider-crank drive and one independent thereof, which latter provides for feeding the stock to be cut according to the saw blade disengagement determined by the bias of the saw blades. This subdivision of the control program into one part dependent on the stroke frequency of the saw gate and one independent thereof is particularly recommended, if the controlling system is connected to an input unit for different control parameters, via which, for instance, the feed shall be varied to adapt to various chip thicknesses.

[0009] If the feed drive is provided with two motors separately controllable via the controlling system and assigned with the feed conveyor in feed direction upstream and downstream of the saw gate, the feed conveyors upstream and downstream of the saw gate may be driven at different speeds, whereby the application of tensile forces and/or forces of pressure to the stock to be cut in the cutting area becomes possible.

#### Brief Description of the Drawing

[0010] The drawing depicts an example of the subject matter of the invention.

Fig. 1 represents a schematic side view of the mill saw according to the invention.

Fig. 2 is a schematic block diagram of the slider-crank drive for the saw gate and the feed drive for the stock to be cut.

Fig. 3 depicts the stroke gradient related to time of the saw gate driven via the slider-crank drive and

Fig. 4 shows the speed gradient related to time of the saw gate on the one hand, and the speed gradient related to time of the feed drive on the other hand.

#### Description of the Preferred Embodiment

[0011] In the example of embodiment according to Fig. 1 the stand 1 of a mill saw is provided with a stroke guide 2 for a saw gate 3 that can be driven to and fro by means of a slider-crank drive 4. The parallel saw blades 5 of the saw gate 3 are gripped conventionally

into a gate frame, which is borne in the saw gate 3 with an adjustable bias. For guiding the stock to be cut a feed conveyor 6 is provided, which consists of driven conveyor rolls 7 arranged upstream and downstream of the saw gate 3, to which rolls 7 the stock to be cut is pressed via snubber rolls 8, which can be set via adjustment cylinders 9. Contrary to conventional feed conveyors 6 the conveyor rolls 7 are not driven via the slider-crank drive 4, but via separate motors 10 with a driving connection via chain drives 11 according to Fig. 2. For controlling these motors 10, designed as gear motors, there is a controlling system 12 comprising a computer unit 13 according to Fig. 2, via which the setpoints are preset to the position controllers 14 for the motors 10. On the basis of these setpoints the motors 10 are controlled according to the requirements of feed via a setpoint/actual-value adjustment. The selection of setpoints is effected via control programs stored in the program memories 15 and 16. In this connection the arrangement has been chosen such that the feed conveyor 6 performs one conveying step each via the motors 10, as soon as the controlling system 12 is triggered via a signal transmitter 17 for the dead center of the slider-crank drive 4 at the end of a cutting stroke.

[0012] By the example of Fig. 3 and Fig. 4 the control sequence for the motors 10 can be explained in detail. Fig. 3 shows the gradient 18 of the stroke  $h$  of the saw gate 3 over the time  $t$  around a mean stroke position  $h_m$  between an upper dead center  $h_o$  and a lower dead center  $h_u$ , with the cutting stroke in cutting direction of the saw blades ensuing from the downward movement of the saw gate 3 from the upper dead center  $h_o$  to the lower dead center  $h_u$ . Due to the sinusoidal stroke gradient 18 related to time of the saw gate 3 the speed gradient related to time for the saw gate 3 corresponds with the characteristic 19 of Fig. 4. The speed  $v$  above the time base  $t$  is equivalent to the cutting speed of the saw blades 5 during the cutting stroke.

[0013] To be able to ensure a regular chip thickness over the cutting stroke, the feed conveyor 6 must be driven in phase with the saw gate 3. An appropriate rate of feed  $v_s$  for the feed conveyor 6 is depicted in Fig. 4, from which it can also be inferred that, according to the speed gradient 19 below the time base  $t$ , there must not be any feed of the stock to be cut during the return stroke of the saw gate 3.

[0014] The bias of the saw blades 5 necessary for the disengagement of the saw blades 5 during the return stroke requires that the disengagement of the saw blades 5 against the bottom of the cutting grooves must be overcome first, before the saw blades 5 are able to engage into the stock to be cut. This means that the feed conveyor 6 must be driven to lead in such a way that the stock to be cut is set to cutting position to the saw blades 5 at the beginning of a cutting stroke. To this end the stock to be cut must be conveyed, prior to the cutting stroke, by a distance equivalent to the disengagement of the saw blades 5, which distance is determined by the adjusted bias, so that the necessary setting of the stock to be cut can be ensured at an appropriate speed gradient  $v_a$  via the feed drive.

[0015] As the time period required for the advanced setting of the stock to be cut is determined at a speed gradient  $v_a$  selected by the program, only a lead time  $t_v$  needs to be allowed for to control, after response of the signal transmitter 17 at the time  $t_{s1}$  in the lower dead center  $h_u$  of the saw gate 3, the motors 10 according to the speed gradients  $v_a$  and  $v_s$ , which are ensured by the control programs in the memories 15 and 16. Each time the controlling system 12 is triggered via the signal transmitter 17 at the time  $t_s$ , the feed drive is actuated according to the speed gradients  $v_a$  and  $v_s$  after a lead time  $t_v$ , whereby the desired intermittent feed drive is ensured. As can be inferred from Fig. 3 and Fig. 4, the time control of the motors 10 depends on the stroke frequency of the slider-crank drive. Therefore the speed gradient  $v_s$  must be adapted to the respective stroke frequency, just as it is also necessary to adapt the lead time  $t_v$  to the stroke frequency. For this purpose the control program stored in the memory 16 that depends on the stroke frequency of the saw gate 3 is computed with the respective stroke frequency in the computer unit 13 in such a way that the respective setpoints can be preset to the position controllers 14 as a function of the respective stroke frequencies. The stroke frequency proper is input to the computer unit 13 via an averaging unit 20, so that possible variations can be compensated.

[0016] To be able to adapt the rates of feed to the various requirements, the parameters to be preset for this purpose can be entered to the controlling system 12 via an input unit 21. Via these parameters, for instance, the amplitudes of the speed gradients  $v_s$  may be varied,

DEUTSCHE PATENT- UND MARKEN AUSZEICHNUNG

as this is outlined in dashes in Fig. 4. Via appropriate parameters, however, it is also possible to allow for variations in the area of the bias of the saw blades 5 to adapt the speed gradient  $v_a$  accordingly.

## Claims

1. Mill saw with a saw gate (3) driven via a slider-crank drive (4), whose parallel saw blades (5), which cut in only one stroke direction, are provided with a bias, and with a feed conveyor (6) for the stock to be cut, which can be driven intermittently during the cutting stroke of the saw gate (3) as a function of the cutting speed by means of at least one motor (10) separated from the slider-crank drive (4) and connected to a controlling system (12), characterised in that the controlling system (12) connected to a signal transmitter (17) for a preset position of rotation of the slider-crank drive (4) controls the motor (10) in dependence on the response of the signal transmitter (17) according to a stored control program for one conveying step adaptable to the respective stroke frequency of the slider-crank drive (4).
2. Mill saw according to Claim 1, characterised in that the signal transmitter (17) consists of a sensor for the dead center of the slider-crank drive at the end of a cutting stroke.
3. Mill saw according to Claim 1 or 2, characterised in that the controlling system (12) is provided with memories (15, 16) for a control program dependent on the speed of the slider-crank drive and one independent thereof for feeding the stock to be cut according to the saw blade disengagement determined by the bias of the saw blades (5).

4. Mill saw according to one of the Claims 1 to 3, characterised in that the controlling system (12) is connected to an input unit (21) for various control parameters.

5. Mill saw according to one of the Claims 1 to 4, characterised in that the feed drive is provided with two motors (10) separately controllable via the controlling system (12) and assigned to the feed conveyor (6) upstream and downstream of the saw gate (3) in feed direction.

### Abstract of the Disclosure

#### Mill Saw

The description refers to a mill saw with a saw gate (3) driven via a slider-crank drive (4), whose parallel saw blades (5), which cut in only one stroke direction, are provided with a bias, and with a feed conveyor (6) for the stock to be cut, which is driven intermittently during the cutting stroke of the saw gate (3) as a function of the cutting speed by means of at least one motor (10) separated from the slider-crank drive (4) and connected to a controlling system (12). To achieve favorable construction features, it is suggested that the controlling system (12) connected to a signal transmitter (17) for a preset position of rotation of the slider-crank drive (4) controls the motor (10) in dependence on the response of the signal transmitter (17) according to a stored control program for one conveying step adaptable to the respective stroke frequency of the slider-crank drive (4).

(Fig. 2)

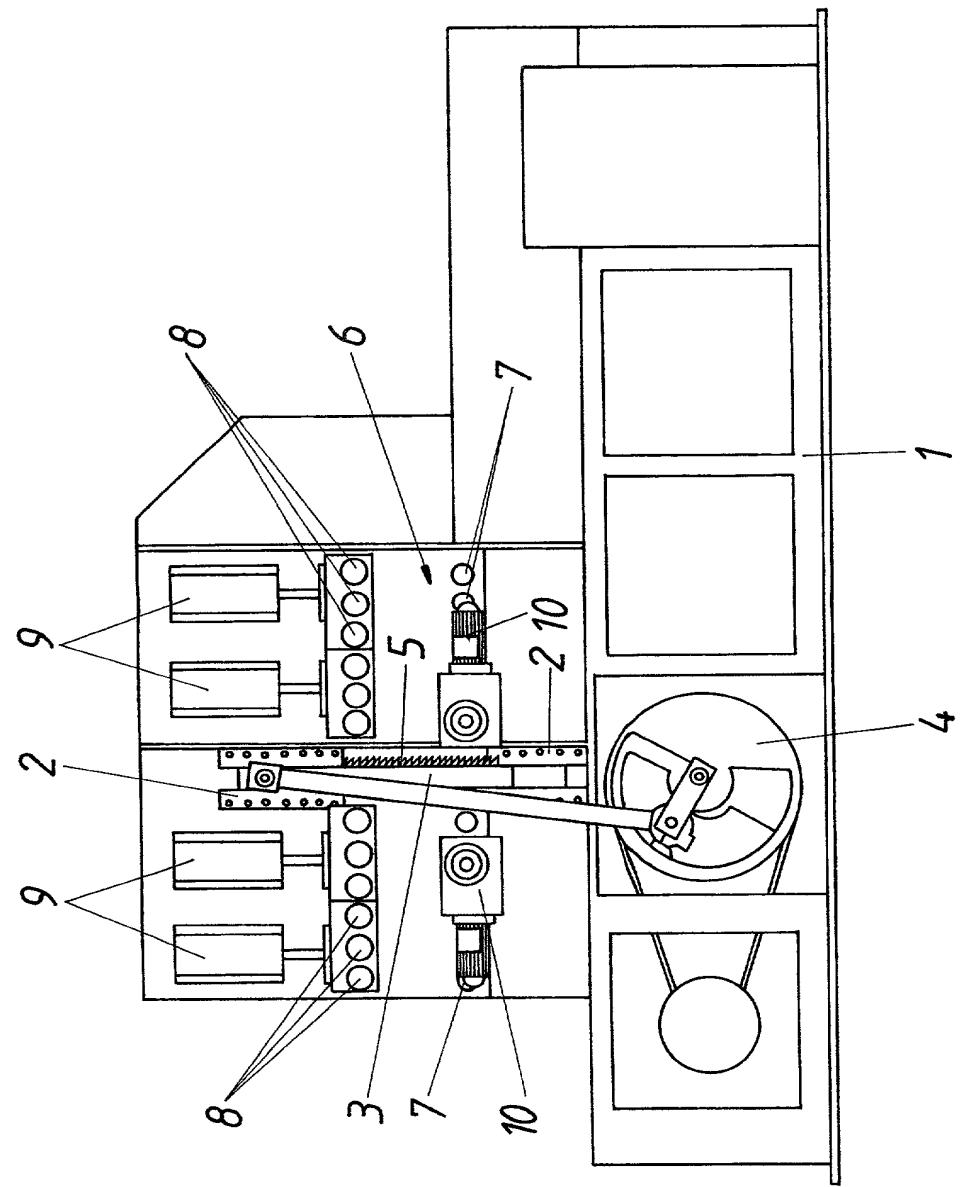


FIG. 1

FIG. 2

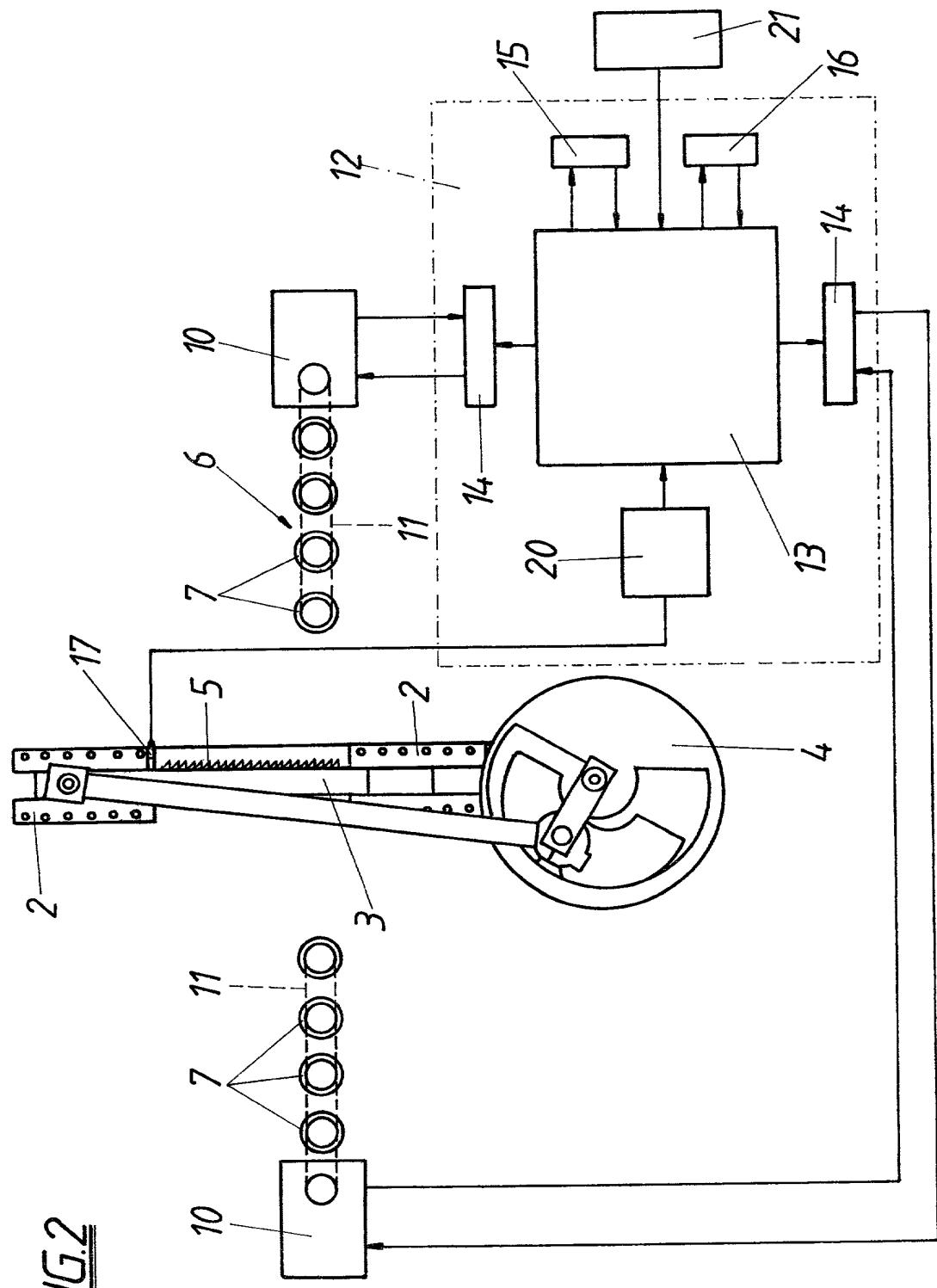
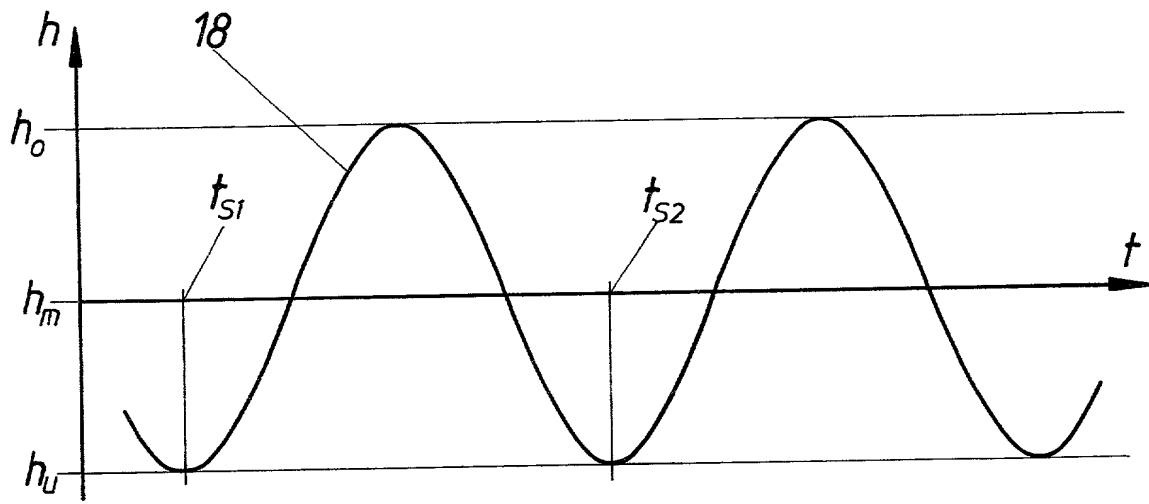
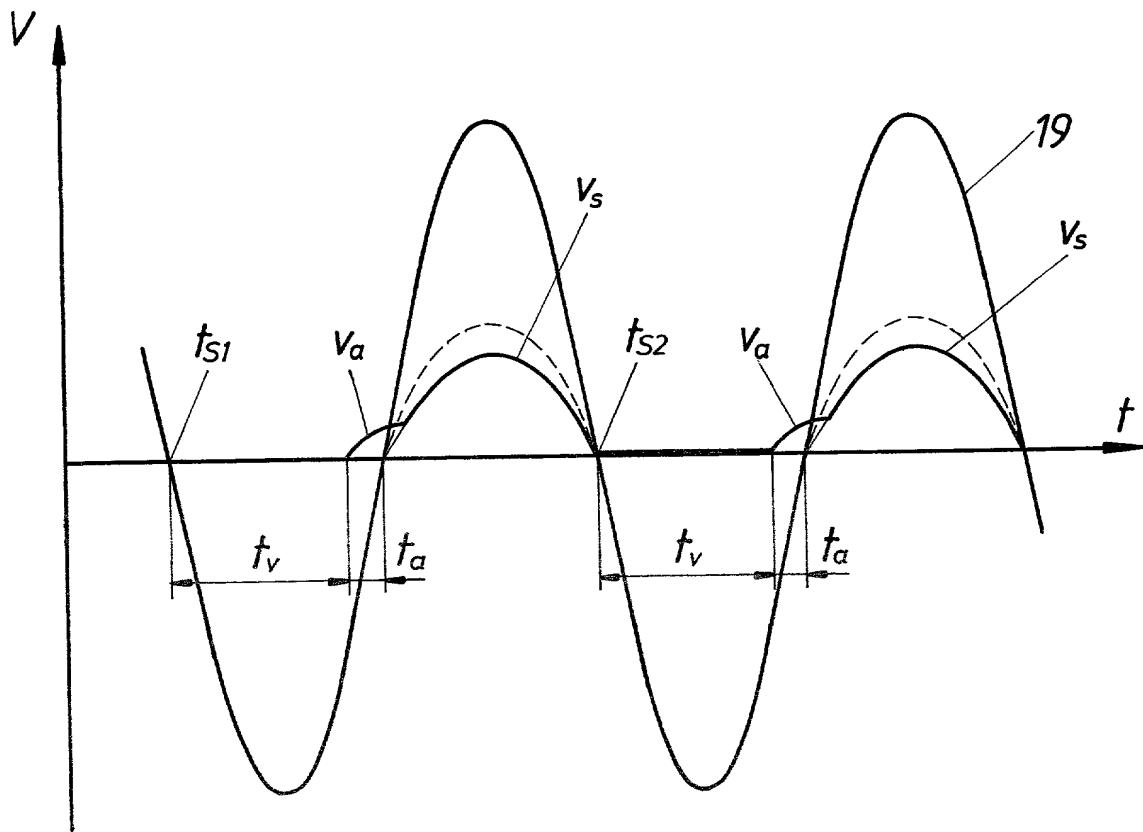


FIG.3FIG.4

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Mill Saw

the specification of which (check only one item below):

is attached hereto.

was filed as United States application

Serial No. \_\_\_\_\_

on \_\_\_\_\_,

and was amended

on \_\_\_\_\_ (if applicable).

was filed as PCT international application

Number PCT/AT 2000/052

on February 28, 2000,

and was amended under PCT Article 19

on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
Austria	A 333/99	01, 03, 1999	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY  
(Includes Reference to PCT International Applications)**
**ATTORNEY'S DOCKET NUMBER**

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

**PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:**

U.S. APPLICATIONS		STATUS (Check One)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				
PCT APPLICATION NO.	PCT FILING DATE	U.S. SERIAL NUMBERS ASSIGNED (if any)		

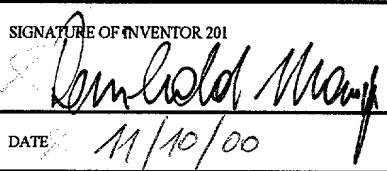
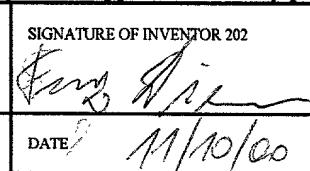
**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration numbers):

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201 	SIGNATURE OF INVENTOR 202 	SIGNATURE OF INVENTOR 203
DATE <u>11/10/00</u>	DATE <u>11/10/00</u>	DATE